



Application Number: 09/719,960

Docket: 14249

MARKED-UP VERSION SHOWING CHANGES

IN THE SPECIFICATION:

After the claims, please insert the attached separate page containing the ABSTRACT OF THE DISCLOSURE.



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--ABSTRACT OF THE DISCLOSURE

The present invention is directed to an apparatus for simultaneously monitoring an array of reaction sites for light indicating that a reaction is taking place at a particular site. The apparatus comprises a charge-coupled device (CCD) arranged so that in use the light from a particular reaction site will impinge upon a particular predetermined region of the CCD. The apparatus also has means for determining the light level impinging upon each of the predetermined regions and means to record the variation of light level with time for each of the reaction sites. Also disclosed is a method of identifying a target base in a DNA sequence using such an apparatus.--

IN THE CLAIMS:

Please cancel Claim 26 without prejudice.

Please amend the claims as follows:

--23. (Thrice Amended) An apparatus for simultaneously monitoring an array of reaction sites for light indicating that a reaction is taking place at a particular site, comprising:
a sample receptacle for receiving a plurality of liquid samples at said array of reaction sites;

a dispenser arranged for dispensing at least one reagent into said samples on said sample receptacle;

[an] a single optically sensitive [device] transducer arranged so that in use the light emitted from a particular plurality of samples at said array of reaction sites will impinge upon corresponding predetermined regions of said optically sensitive [device] transducer;

a light intensity level determination device in connection with said optically sensitive [device] transducer for simultaneously determining the level of light intensity impinging upon each of said predetermined regions; and

a recorder in connection with said light intensity level determination device to record the variation of said light intensity level with time for each of said liquid samples.--

--28. (Amended) An apparatus as claimed in Claim 23, comprising an array of lenses between, or arranged in use between, said reaction sites and the optically sensitive [device] transducer.--

--30. (Amended) An apparatus as claimed in Claim 23, wherein the optically sensitive [device] transducer comprises a charge-coupled device.--

--31. (Amended) An apparatus as claimed in Claim 30, wherein the optically sensitive [device] transducer comprises a frame transfer charge-coupled device.--

--33. (Amended) An apparatus as claimed in Claim 23, comprising means to convert the electrical output from said optically sensitive [device] transducer into a digital signal--

--46. (Amended) An apparatus for identifying target bases in DNA sequences comprising:

- a plate for receiving a plurality of liquid samples at respective reaction sites;
- a dispenser arranged for dispensing at least one reagent into said samples on said plate;
- [an] a single optically sensitive [device] transducer arranged so that in use light generated by the reaction of a plurality of particular liquid samples on said plate signifying the incorporation of a nucleotide will impinge upon corresponding predetermined regions of said optically sensitive [device] transducer;
- a light level determination device in connection with said optically sensitive [device] transducer for simultaneously determining the level of light impinging upon each of said predetermined regions; and
- a recorder in connection with said light level determination device for recording the variation of said light level with time.--